

IN THE CLAIMS

Please amend Claims 10, 17, 18, 21 and 22, to read as follows.

1-9. (Canceled)

10. (Currently Amended) A print head substrate on which is provided a print head assembly, the print head substrate having an ink supply opening, the print head assembly comprising:

an array of printing elements provided along the ink supply opening and
divided into a plurality of groups of printing elements;

[[a]] an array of driving circuit circuits provided along the ink supply opening and arranged to correspond to the printing elements, respectively, for ~~selectively~~ driving the corresponding printing elements, respectively;

a selection circuit common to the plurality of groups of printing elements of the array for selecting a printing element to be driven in each group; and

data supply means for supplying driving data to the driving circuit circuits,

wherein the selection circuit has common lines ~~coupled to~~ through which electric signals are supplied for driving the plurality of groups of printing elements of the array ~~for~~ by selecting a printing element to be driven in each group, and

wherein the data supply means comprises a plurality of shift registers, the plurality of shift registers are provided at both longitudinal ends of the ink supply opening, and each shift register is arranged to supply driving data for a corresponding set of the printing elements, the shift registers being spaced apart in the direction of the array with each shift

~~register being arranged adjacent to the corresponding set of printing elements to one or more of the driving circuits for driving the corresponding printing elements, of the plurality of groups of printing elements, which are closer than non-corresponding printing elements to the shift register.~~

11. (Previously Presented) A print head substrate according to claim 10, wherein a plurality of the print head assemblies are provided on the substrate.

12. (Previously Presented) A print head substrate according to claim 10, wherein the plurality of shift registers receive clock and data signals, and the data supply means further comprises a plurality of latches for latching output signals from the shift registers, and AND circuits for deriving a logical product of outputs from the latches and a driving signal.

13. (Previously Presented) A print head substrate according to claim 10, wherein there are two shift registers arranged at respective ends of the printing element array.

14. (Previously Presented) A print head substrate according to claim 10, wherein the array of printing elements extends alongside an ink supply port.

15. (Previously Presented) A print head substrate according to claim 12, wherein the array of printing elements extends alongside an ink supply port.

16. (Previously Presented) A print head substrate according to claim 10, wherein said selection circuit is arranged at one end of the printing element array.

17. (Currently Amended) A print head substrate according to claim 10, wherein said substrate is a rectangle and the printing ~~elements~~ element array extends along the length of the rectangle.

18. (Currently Amended) A print head comprising a print head substrate on which is provided a print head assembly, the print head substrate having an ink supply opening, the print head assembly comprising:

an array of printing elements provided along the ink supply opening and
divided into a plurality of groups of printing elements;

[[a]] an array of driving circuit circuits provided along the ink supply opening
and arranged to correspond to the printing elements, respectively, for ~~selectively~~ driving the
corresponding printing elements, respectively;

a selection circuit common to the plurality of groups of printing elements of the
array for selecting a printing element to be driven in each group; and

data supply means for supplying driving data to the driving ~~circuit~~ circuits,

wherein the selection circuit has common lines ~~coupled to~~ through which
electric signals are supplied for driving the plurality of groups of printing elements of the array
for ~~by~~ selecting a printing element to be driven in each group, and

wherein the data supply means comprises a plurality of shift registers, the
plurality of shift registers are provided at both longitudinal ends of the ink supply opening, and
each shift register is arranged to supply driving data ~~for a corresponding set of the printing~~
~~elements, the shift registers being spaced apart in the direction of the array with each shift~~
~~register being arranged adjacent to the corresponding set of printing elements~~ to one or more of

the driving circuits for driving the corresponding printing elements, of the plurality of groups of printing elements, which are closer than non-corresponding printing elements to the shift register.

19. (Previously Presented) A print head according to claim 18, wherein the print head is an ink jet head for printing data by discharging ink.

20. (Previously Presented) A print head according to claim 19, wherein the print head comprises electrothermal transducing means for generating thermal energy to cause ink discharge.

21. (Currently Amended) A print head cartridge comprising:
a print head having a print head substrate on which is provided a print head assembly, the print head substrate having an ink supply opening, the print head assembly comprising an array of printing elements provided along the ink supply opening and divided into a plurality of groups of printing elements, [[a]] an array of driving circuit circuits provided along the ink supply opening and arranged to correspond to the printing elements, respectively, for selectively driving the corresponding printing elements, respectively, a selection circuit common to the plurality of groups of printing elements of the array for selecting a printing element to be driven from each group, and data supply means for supplying driving data to the driving circuit circuits, wherein the selection circuit has common lines coupled to through which electric signals are supplied for driving the plurality of groups of printing elements of the array for by selecting a printing element to be driven from each group, and wherein the data supply means comprises a plurality of shift registers, the plurality of shift registers are provided at both longitudinal ends of

the ink supply opening, and each shift register is arranged to supply driving data for a
corresponding set of the printing elements, the shift registers being spaced apart in the direction
of the printing element array with each shift register being arranged adjacent to the corresponding
set of printing elements to one or more of the driving circuits for driving the corresponding
printing elements, of the plurality of groups of printing elements, which are closer than non-
corresponding printing elements to the shift register; and

an ink tank for storing ink to be supplied to the print head.

22. (Currently Amended) A printing apparatus for printing data, the apparatus comprising:

a print head having a print head substrate on which is provided a print head assembly, the print head substrate having an ink supply opening, the print head assembly
comprising an array of printing elements provided along the ink supply opening and divided into
a plurality of groups of printing elements, [[a]] an array of driving circuit circuits provided along
the ink supply opening and arranged to correspond to the printing elements, respectively, for
selectively driving the corresponding printing elements, respectively, a selection circuit common
to the plurality of groups of printing elements of the array for selecting a printing element to be
driven from each group, and data supply means for supplying driving data to the driving circuit
circuits, wherein the selection circuit has common lines coupled to through which electric signals
are supplied for driving the plurality of groups of printing elements of the array for by selecting a
printing element to be driven from each group, and wherein the data supply means comprises a
plurality of shift registers, the plurality of shift registers are provided at both longitudinal ends of
the ink supply opening, and each shift register is arranged to supply driving data for a

~~corresponding set of the printing elements, the shift registers being spaced apart in the direction of the printing element array with each shift register being arranged adjacent to the corresponding set of printing elements~~ to one or more of the driving circuits for driving the corresponding printing elements, of the plurality of groups of printing elements, which are closer than non-corresponding printing elements to the shift register; and

driving data generation means for generating a data signal for each path of the shift registers.